

CW RACING'S ZS



Question: What is the most competitive facet of the industry.

Answer: Frame building. And it is in frame building that CW Racing has emerged from the woodwork literally overnight.

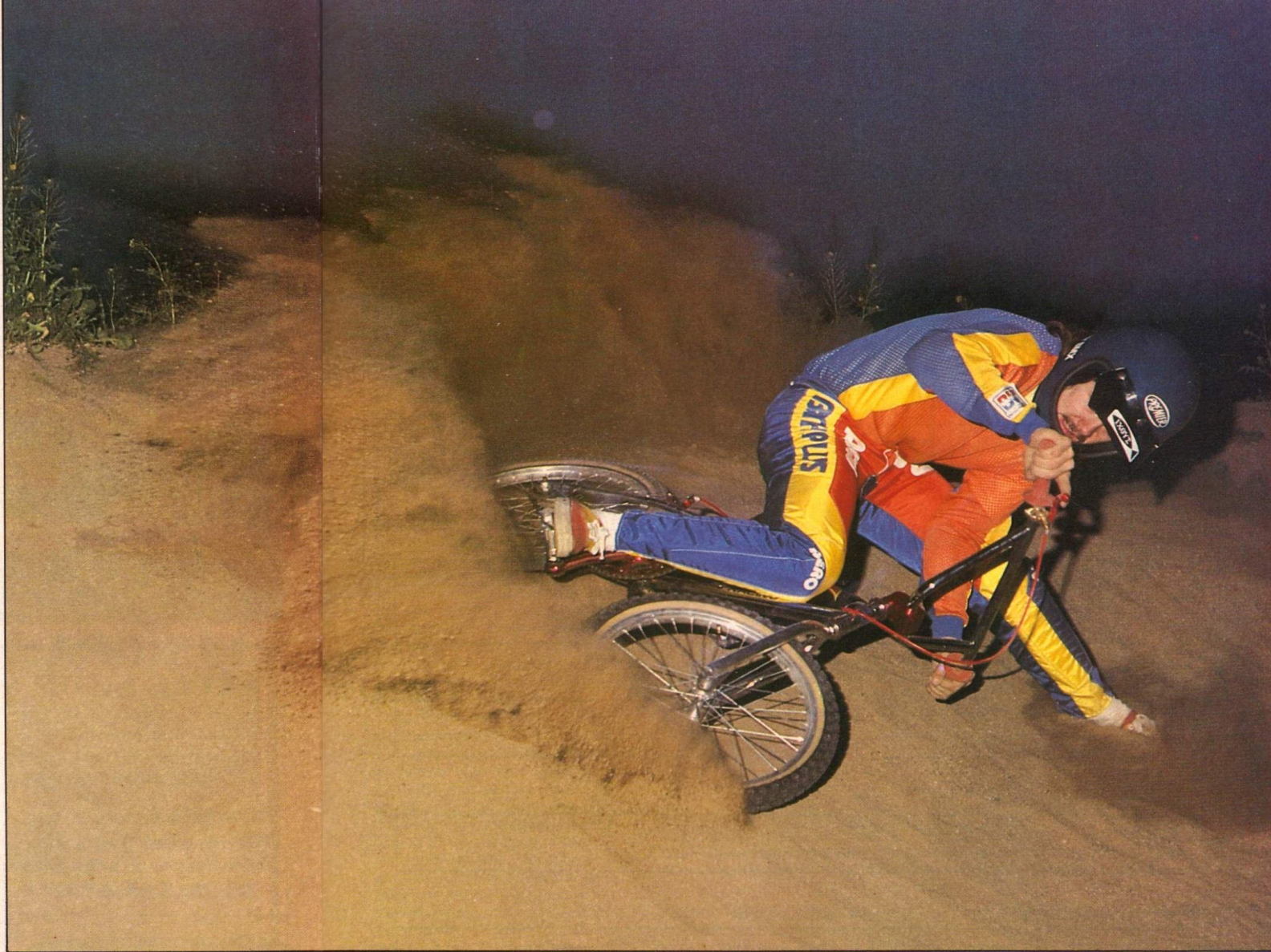
By Bob Hadley Photos by John Ker

Frame building is simple. Cut some tubes, tweak it here, tweak it there, weld it up and bingo! You're a frame maker. Now try and sell it. The easy part is done, but now you face the biggest obstacle in business. Especially in the BMX business. Getting into the frame business is rough. Consider that there are currently over forty different brand names on the market, almost all of which offer

BMX PLUS!

complete framesets (i.e. frames and forks). Some in-the-field observers call the frame market "saturated," and one company president says, "It's already too overcrowded," every time a new name pops up into competition with him. Roughly translated, he really means, "I hope that it won't cut into my sales." The law of the jungle applies to the frame market: it is the survival of the fittest. In the heart of that

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jungle is where CW Racing made its rise to fame: in the tough competition at the upper end of the price spectrum. When all you do is sell framesets, not complete bikes, little subtleties can make or break you. CW Racing came along with the right product at the right time.

With the consumer having such a wide variety of framesets to choose from, making a decision can be tough. Even then it is made tougher

by the status of your local bike dealer. Just how many brands is he willing to carry? Usually not that many. For most bike dealers it is a matter of practicality. No one can afford to stock every brand, all of which have various assortments of sizes and colors. The dealer is stuck with carrying only the brands people ask for most. The rest he'll special order, but, more often than not he'll sell the customer

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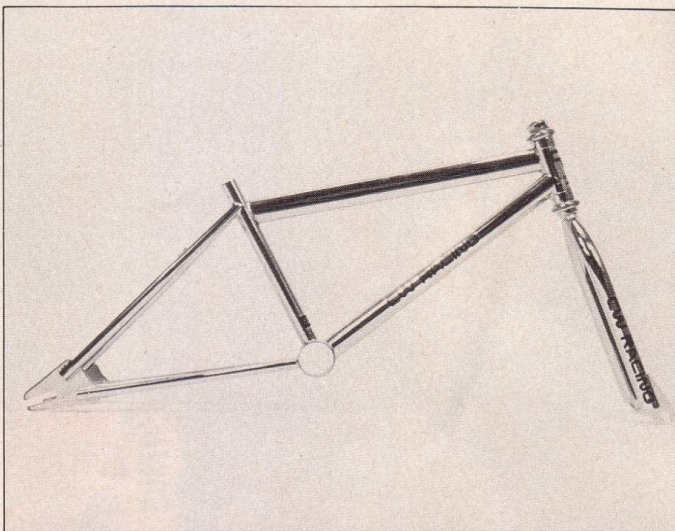
CW Racing

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DIMENSIONS

Weight	(A) Wheelbase	(B) Head Angle	(C) Seat Angle
24 lbs	35.25"	69°	61.5°
(D) Hanger Height	(E) Hanger to Axle	(F) Top Tube Height	
12.58"	15.25"	27.33"	

FRAME SPECIFICATIONS

Weight	Material/Construction	Seat Post Diameter	Head Tube Style	Hanger Style
3 3/4 lbs.	4130 chrome-moly/heli arc	7/8 inch	Standard	Standard

FORK SPECIFICATIONS

Weight	Material/Construction	Height	Offset
1 lb. 13 oz.	4130 chrome-moly/heli-arc	13.14"	1.1"

BIKE COMPONENTS

Cranks	Chain	Pedals
Shimano DX	1/2 X 1/8	Shimano DX
Gearing	Wheels/Hubs	Seat/Seat Pillar
44/16	Araya 7X Shimano DX	Elina/Shimano DX
Stem	Bars/Grips	
Shimano DX	CW Racing A'ME	
Brakes	Tires	
Diacompe MX 1000	Mitsuboshi Comp III	

something else.

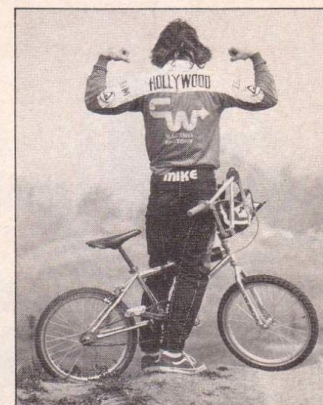
So the consumers, that is, you and I, tend to help the dealer make up his mind, especially, if not primarily, in the area of high-tech, high-dollar items (you generally won't find uninformed customers shopping for high-priced equipment). Creating demand on the consumer level is how CW Racing, after only one year, has moved into the market. They've built up the demand for their framesets as fast as, or faster than, anyone else we can think of.

It takes a combination of certain factors to be a success that fast. (You could call it a formula for success, but it isn't that simple.) You have to have a product that shows innovation, yet is not bizarre. Then you need timing and luck in your marketing strategy. This is where CW Racing put it all together.

The factory put together the bike that has the "look," and the team to go with it. (Names like Mike Miranda, Andy Zirzow, and Tracer Finn established the racing image.) The look of the bike itself is a distinctive one. The oval top tube and oversize down tube give the front triangle a sturdy look. The rear triangle has clean lightweight lines, a sharp contrast to the appearance of the front triangle. But looks can be deceiving.

The downtube has a one-and-three-eighths inch O.D. (outside diameter). Which is the largest tube we've ever seen on any test bike. The tube is thin-walled 4130 chrome-moly, so, despite its size, the weight is kept down. The top tube is thin-walled oval 4130 chrome-moly. The oval shape is not to be confused with the tear-drop-shape tubing on JMCs or the flat-oval shape found on some of the Japanese-made frames. (Flat-oval tubes are usually round tubes that have been squished to the oval shape.)

Dimensions of the oval cross-section are roughly one-and-one-half inches by three-quarters of an inch. The way oval tubing reacts to stress is simple. The thin (three-quarter-inch) cross section reacts to side loads as if it were a round three-quarter-inch tube. The wide (one-and-one-half-inch) cross-section reacts to directional loads as if it were a round one-and-one-half-inch diameter tube. Got that? The one-and-one-half-inch cross-



Miranda was in top form for this test, and for once he got to wear his own racing outfit.



Mike normally rides the longer CW model, but there were no adjustment problems for him.



This place wasn't supposed to exist anymore, but it still does. First turn at Corona with the CW flat trackin' under capable hands.

section top tube is especially capable of absorbing the loads transmitted through the head tube from heavy landings on jumps. The big down tube helps aid in resisting the side-to-side frame whip that is the result of heavy pedaling pressure.

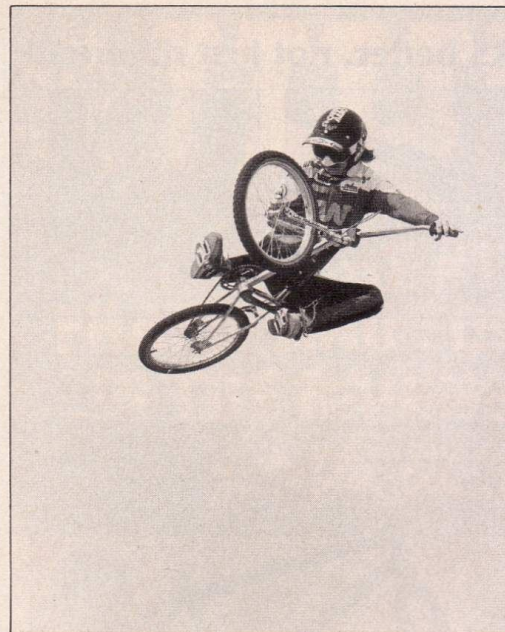
Another detail in the front triangle is the machined head tube. This keeps the wall thickness slightly heavier at the ends where the headset races press in. The weight saving is probably minimal, but it is a nice detail that you don't find on many frames.

Sheer simplicity is a good way to describe CW's rear triangle. Seat

and chain stays both have only one simple bend each, which is just enough to get them around the rear tire and to the dropout. The dropouts are made from one-eighth-inch-thick steel plate, which is about the average thickness of dropouts on most bikes. Chain clearance near the stays is excellent. The stay tubes are offset slightly outside the dropouts to prevent any chain clearance problems. The ends of the stays are not plugged where they match the dropout. The open ends don't do anything one way or another; some manufacturers plug them and some don't. CW is one that doesn't.



Miranda checks out his shoelace (still neatly tied, of course) as he flies over a small jump. Notice the unusual design of the CW handlebars. Nifty, eh?



Miranda could really make this CW fly. The unusual design of the frame (see text) gives the bike the strength to take this kind of stress.



We found the balance and handling of the bike especially well designed for jumping. That suited Miranda perfectly since getting air is his favorite pastime.

CW's long, axle-adjusting slot means you can go through a wide range of gear changes without taking out or adding links to your chain. But the long slot and the slightly high position of the caliper brake mount make a standard 890-length caliper brake impractical for the frame. Only a long reach 1020 or MX 1000 caliper will work on the CW and still give you the complete axle adjustment. The brake bracket itself is a one-eighth-inch-thick steel plate with a vertically elongated mounting hole to allow the caliper unit to be adjusted slightly.

Standard components fit like champs on the CW frame. Even the fussy Tange MX-3 headset went in without any trouble. (The MX-3 and MX-5 headsets are notorious for fitting tight. Unless installed properly, the upper pressed race can crack during assembly.) Other details like good chain alignment, sprocket clearance, and seat-post fit were incorporated into the CW design.

The slant of the CW standard frame tends toward conservative angles. The head angle is seventy degrees and the seat angle is sixty-two degrees. On paper the head

angle looks slow but, when combined with the CW fork, you get a lively front end—substantially quicker than you'd expect from the seventy degrees. The fork has only an inch of offset, which brings the front wheel in closer and improves the low-speed maneuverability. The seat angle is laid way back, giving the bike a lightweight front end when you're sitting. Standing for power-wheelies and jumping, a rider will find the laid-back seat angle has no ill effect. The balance is excellent for jumping- and speed-jumping-type maneuvers.

Back to the fork. It is a tubular 4130 chrome-moly unit. For weight savings the legs are welded directly to the steering stem, as opposed to a steel sleeve around the stem. The flange for the lower race is a small sleeve welded to the stem just above the legs. There should've been a mounting hole in the fork for a front brake on our test bike. If you want a front brake you can drill the hole for yourself.

Other CW Gear

Just recently CW Racing entered the handlebar business, but they didn't go the mainstream route. Their handlebars are very unusual. The handles (what else do

you call them?) are an extension of the crossbar. The riser portion of the bar is welded under the crossbar section. The tall bars have excellent height for most riders (mid- to tall-size riders). The sweep bend is angled down slightly lower than the curve of a Red Line V-bar. For riding and racing, the bars are comfortable and easy to adapt to. Actually the hardest thing to get used to is their looks. They sure are different.

Finally

CW Racing has put together a good formula for success. Their products are of good quality and their prices are right in there. Handling and overall performance of this, their standard model twenty-inch (short frame), is excellent. As a sidenote: they supplied the Shimano DX components. Naturally the components you choose may upgrade or downgrade the performance slightly, but, either way, you'll end up with one fine piece of machinery. □